REPORT

ON THE

AGRICULTURAL STATISTICS OF SHAHABAD,

PERGUNNAHS BARAGAON, ARRAH, AND BEHEA,

1873-74.

By M. S. D. H. AHAMED, B.A.,

Deputy Collector of Shahabad.

Calcutta:

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1874.

No. 357A, dated Fort William, the 16th September 1874.

From—J. GEOGHEGAN, Esq., Offg. Secretary to the Board of Revenue, Lower Provinces,

To—The Offg. Secy. to the Govt. of Bengal, Statistical Department.

Hon'ble H. L. DAMPIER.

Patna Commissioner's No. 373R, dated 22nd August 1874.

WITH reference to paragraph 5 of Government order No. 2996, dated 14th October 1873, I am directed to submit the accompanying letter and its enclosures from the Commissioner of the Patna Division, forwarding a report drawn up by the special Deputy Collector, Moulvie Dilwar Hossein Ahmed, on the agricultural statistics of certain pergunnahs of the district of Shahabad.

No. 373R, dated Bankipore, the 22nd August 1874.

From—S. C. BAYLEY, Esq., Commissioner of the Patna Division,

To—The Secretary to the Board of Revenue, Lower Provinces.

Pergunnahs Arrah, Behea, Baragaon, Sasseram, Rhotas, and Chynepore.

WITH reference to this office No. 234R, dated 29th June last, I have the honor to forward herewith copy of a memorandum No. 603 of 24th ultimo, from the Collector of Shahabad, and its annexure, submitting a revised report drawn up by the special Deputy Collector, Moulvie Dilwar Hossein Ahmed, on the statistics of certain pergunnahs in Shahabad, as marginally noted, together with the statements relating to them.

2. The report is, I regret to observe, very meagre and incomplete, as pointed out below.

3. In paragraph 6 of the Board's letter No. 43A, dated 21st January 1873, forwarded with this office No. C, dated 3rd February 1873, the Deputy Collector was requested to note specially "whether the people breed cattle enough for their own use, and whether they import and export cattle of various kinds." But the report is almost silent on the subject. In paragraph 235 the Deputy Collector mentions only incidentally that large numbers of cattle are brought to the two fairs at Barrehpore in pergunnah Bhojepore.

4. On the state of education in the pergunnahs the report, as given in paragraphs 195 to 197, is very meagre. The Deputy Collector has not touched upon the subject of Government patshalas, how many of them there are, and whether they are attended largely, and what the feelings of the people are towards these institutions. Besides, in writing about pergunnah Arrah, where there is an English Government school, mention should have been made whether the people have a liking for English education, and how far the school is attended by the Beharees.

5. The important subject of the state of feeling between the landlords and tenants has been altogether omitted in the report.

6. The subject of dispensary deserved a more careful attention than has been bestowed upon it. The daily average attendance should have been given, and something said regarding the origin and present condition of the institution, as well as the interest which the people take in it; along with it some vital statistics should have been given, and the general state of public health noticed.

7. *Manufacture.*—This is a subject on which a detailed report was expected, being one which might give us an idea of the resources of the country, and of the habits and material prosperity of the people. It is also one on which much stress has been placed by the Board in paragraph 9 of their No. 43A, dated 21st January 1873. The explanation given by the Deputy Collector regarding the paucity of information on this head is not satisfactory, as he has taken a considerably long time in preparing the report.

8. *Religion.*—The Deputy Collector has altogether omitted this important subject.

9. On the whole, the Deputy Collector's report is very disappointing, the more so, as he has taken such an unusual length of time to prepare it.

10. I beg that if the report is printed, I may be furnished with some copies of it.

No. 6, dated Buxar, the 10th July 1874.

From—MOULVIE S. D. H. AHMED, B.A., Deputy Collector, Buxar,

To—The Collector of Shahabad.

WITH reference to your memorandum No. 468 of the 27th June last, I have the honor to re-submit the statistical returns after revision.

Two columns in Statement E 2, Part I, are necessarily to be left vacant, because there are no dates from which to calculate the rate of assessment per acre of cultivated land and of culturable land. The other two columns have been filled in.

The difference between the total area assessed, and the total area enquired into, is due to the fact that lands wasted away by the river have not been shown in the returns, and that lands but recently formed have also not been taken into account.

The form, Part III, Table D, supplied to me did not observe any distinction between rainy season and dry season crop. But so far as I have been able, I have supplied statements showing the proportion of different crops included in column "Other grain" (my returns Nos. 3,4, and 5).

Statement Part III, Table E 2, was submitted with the other statements; a copy is re-submitted.

I have the honor to inform you that the report and the statements submitted in May 1873 were never returned to me, and that the present report was submitted on the 10th May.

I have the honor to explain that, though I promised to submit the report and statements within a short time, I could not do so earlier than May 1874, because I had other, and sometimes more urgent duties

to perform. From May to December 1873, both inclusive, I was out on other duties for about sixty days, and had to take up 31 miles, or 500 acres of canal land, and to estimate for about 370 miles of canal land

From January to April 1874, I was out on other duties for about thirty-five days, and had to take up 84 miles of canal, or 1,500 acres of land.

From November to February I also submitted a report on the probable prospects of the rubbee crops after personal inspection and enquiry.

In the columns of figures, the figures under acres mean rods, and those under rods, poles; but as I have no good foolscap paper with me, I have allowed the statements to stand in this respect as they are, making only such additions as are absolutely necessary. The statements returned with your memorandum No. 479 of the 1st instant are also re-submitted.

No. 603, dated Arrah, the 24th July 1874.

Memo. by—H. ALEXANDER, ESQ., Collector of Arrah.

No. 136R, dated the 23rd June 1874.
" 144R, dated the 29th " "

COPY, with copies of the report and statements, forwarded to the Commissioner of Revenue, with reference to his letters marginally noted.

2. The delay noticed was in copying the report and the statistical returns, and examining them.

REPORT

ON THE

AGRICULTURAL STATISTICS OF SHAHABAD,

PERGUNNAHS BARAGAON, ARRAH, AND BEHEA,

1873-74.

Preliminary.

THE district was surveyed in 1845-46, and the pergunnah of Arrah was put down as, with small exceptions, under full cultivation. The confiscated estates of Kunwar Singh of Jugdispore were re-surveyed by about 1861. The proportion of cultivated to uncultivated lands in such of these estates as are within the Arrah pergunnah was 78 to 22 in 1845, and 72 to 28 in 1861. This cannot be; there must be a mistake somewhere. The proportion now found is about 81 to 19.

2. The mouzahs in pergunnah Arrah, which formerly belonged to Kunwar Singh, are all within the Anayeth Mehal, and were in a state of full cultivation even in 1845, as the survey records indicate. If the proportion of 78 to 22 were correct, the difference of 3 per cent between 1845 and 1873 represents the increase in the margin of cultivation.

Proportion of cultivation in pergunnah Arrah.

3. In 1845-46 the proportion of cultivated to uncultivated lands in pergunnah Arrah, excluding villages on the Ganges and the Soane, was about 86 to 15; at present it is about 89 to 11. From the settlement papers of 1865, the proportion of cultivated to uncultivated lands in villages situated on the Ganges and the Soane seems to have been about 74 to 26; it is now found to be about 68 to 32. This difference is probably owing to the fact that cultivated lands are slowly, but continually, being washed away; while alluvial accretions, whenever added, are all put down as, at present, uncultivable.

In pergunnah Baragaon.

4. In 1845-46 the proportion of cultivated to uncultivated lands in the villages of Baragaon, other than those bordering on the Soane and the Ganges, was about 75 to 25; it is now about 79 to 21. The proportion of cultivated to uncultivated lands in villages bordering on the Ganges and the Soane was in 1865 about 64 to 36; it is now found to be about 55 to 45.

5. The difference is probably owing to the same fact as in Arrah, but that the disproportion is larger is due to two other facts, viz., that

Baragaon is a very small pergunnah, and that fully on two sides it is bounded by the Ganges and the Soane. Half the boundary line is formed of river coast; whereas in Arrah a small proportion of the boundary line is exposed to the action of river water.

6. In both cases the cultivation in villages, not subject to the action of the Ganges and the Soane, seems to have increased, and that in villages on the Ganges, and the Soane appears to have gone down; while as now, so in 1860-61, the proportion of cultivation in the latter was less than in the former villages. These coincidences and regularities prove the general correctness of the results now obtained.

7. These two pergunnahs are stated to have been in 1845 in a state of full cultivation with inconsiderable exceptions.

Pergunnah Behea.

8. The cultivated area in pergunnah Behea was in 1845-46 about 75, and the uncultivated about 25 per cent of the whole. The ratio now stands as 81 to 19. The pergunnah was, without inconsiderable exceptions, in full cultivation at the time of the survey. The difference of 6 per cent represents the increase in the margin of cultivation since 1845-46.

Uncultivated lands divided.

9. The proportion of cultivated to uncultivated lands in Behea, Arrah, and Baragaon, taken together, is about 78 to 22. The cultivable fallow is to the uncultivable waste as 7 to 15. The grazing land is to the arable fallow as 3 to 67; and land now fallow, but cultivated within three years past, is to land not so cultivated as 9 to 5·8.

10. Of the total uncultivable area, divided into 100 parts, 15 are occupied by village sites, 12 by roads, bye-ways, and other means of communication; 21 by gardens; 8 by ahars, tanks, and other stagnant sheets of water; 8 by rivulets and streams; 24 by sand, chiefly alluvial; and 12 by other waste lands.

Proportion of irrigation.

11. The irrigated area is to the unirrigated as 28 to 72. In Behea the ratio is higher than the average, viz., 47 to 53. Lands liable to be inundated by the water of the Ganges do not require irrigation. Such lands are relatively more extensive in Arrah than Behea. The northern portions of the pergunnahs border on the Ganges, and artificial irrigation is chiefly resorted to towards the south. The railroad forms about the average boundary of the flood. More than half of Behea lies south of the railroad, while only less than one-fourth of Arrah is so situated.

12. Irrigation therefore is relatively more prevalent in Behea than in Arrah, while in both pergunnahs the southern portions are more extensively irrigated than the northern. Irrigated lands, south of the railroad in Behea, are to unirrigated lands as 13 to 8, and the porportion in Arrah is about equal.

13. The small difference in the averages, however, is owing to the river Soane forming the eastern boundary of pergunnah Arrah, and lands situated near the Soane are seldom, if ever, irrigated.

Particulars of irrigation.

14. Of the area irrigated, divided into 100 parts, less than two parts are irrigated from running streams, about 63 from tanks and other reservoirs of water, and more than 35 from wells; while 40 parts are irrigated

during the dry season by means of lift water, and 60 during the rains by means of flow water. The cultivated area being divided into 100 parts, 21 parts produce winter rice, about 14 parts wheat, and 60 parts other food-grains. Taking each pergunnah singly, we have only two parts producing winter rice in Baragaon, 16 parts in Arrah, and 30 parts in Behea; while in Arrah we have 19 parts of wheat, and in Behea only six parts.

Proportion of produce.

15. Indigo is much more extensively grown in Behea than in Arrah. Most of the factories of Messrs. Burrows, Thomson, and Mylne, and of the Messrs. Fox, are situated in Behea. The area under sugarcane cultivation is also larger in Behea. There is but little tobacco cultivation, and no tea or coffee cultivation at all.

Particulars of other food-grains than winter rice and wheat.

16. Of the area producing food-grains, other than wheat and winter rice, divided in 100 parts, 66 yield unmixed, and 34 mixed crops.

17. Of the 66 parts yielding unmixed crops, above 38 parts grow the different pulses; less than 11 parts the rainy season rice, or sendha and sathee; about eight parts the smaller and larger maize; about six parts barley; and less than four parts other cereals, viz., kodai, mandwa, bajra, &c.

18. Of the 34 parts yielding mixed crops, 30 parts grow a cereal pulse crop, about one part (a cereal) cereal crop, less than one part a (pulse) pulse crop, and above two parts an oil-seed, cereal, or pulse crop.

19. The mixed crops generally consist of two kinds of seed, but sometimes three kinds of seeds are also sown together.

20. Of the pulses grown, unmixed peas are first, occupying 67 per cent of the area; gram stands next, and at 17 per cent; relatively, peas are more extensively sown in Arrah and gram in Behea.

21. Of the pulses grown in a mixed state, gram covers nearly 81 per cent (85 in Behea and 78 in Arrah); next comes arhar, occupying about 14 per cent of the area sown with pulses and other seeds together (17 in Arrah and 10 in Behea); barley in Behea is about 9½ per cent, and in Arrah only 3½ per cent of the area producing food-grains other than wheat and winter rice; whereas rainy season rice, or sendha and sathee, are in Arrah about 15 per cent, and in Behea only 4 per cent of the said area. Pulses, maize, and the other cereals occupy about the same proportional area in the two pergunnahs.

Proportion of autumn, winter, and spring crops.

22. In both pergunnahs, taken together, the rainy season crop, the winter crop, and the spring crop, are to each other as 10, 26, 64. In Arrah the proportions of the rain and rubbee crops are higher than in Behea, the winter crop being more extensive in Behea than in Arrah.

Single and double crops.

23. Of the total cultivated area, 85 parts yield single and 15 double crops. The area of double crops is somewhat larger in Arrah than Behea.

Details of double crops.

24. On lands producing two crops, the first crops are 40 parts rainy season rice, or sendha and sathee; 27 maize; 12 winter rice; and 21 other cereals. The second crops are 69 parts pulses; 26 cereals and five

poppy. It is only in Arrah that poppy lands grow an earlier, and chiefly in Behea that winter rice lands yield a later crop.

Autumn and winter rice.

25. The rainy season and the winter rice are as 23 to 77. But in Behea, rainy season rice is to winter rice as only 8 to 92; whereas in Arrah it is so high as 40 to 60.

Number of crops.

26. There are three harvests, viz., the bhadoi, sown in June and July, and reaped in August and September; the aghanee, sown in June and July, and gathered in October and November (these two crops being included in the generic term khareef); and the rubbee, sown in October and November, and cut in February and March.

Bhadoi.

27. The bhadoi (so named from being gathered about Bhadon) consists chiefly of sendha and sathee, (corresponding to the aous rice of Bengal), of kodai, janera, or the larger maize, mandwa, and the black mash or urid. The aghanee (reaped about Aghan, as its name implies) consists of rice (corresponding to the amun of Bengal), the smaller maize or jowar, kodai, bajra, kurthee, and the green mash or urid.

Aghani.

Rubbee.

28. The rubbee consists of wheat, barley, peas, gram, oats, masoor, khesaree, and boro rice.

Kinds of sowings.

29. Sowings are either broadcast or by drill. In broadcast sowings the seeds are scattered by the hand after the ground has been ploughed. Drill sowings are of two kinds; when the ground is being finally ploughed up, a person follows the plough with a basket of seed, and drops the seeds into the fissures or furrows till the sowings are completed. The other kind of drill sowing is resorted to chiefly in the cases of wheat and barley. A hole is made in the plough just above the share; into this hole is stuck a cylindrical piece of wood, hollow throughout, the top being shaped in the form of a funnel. The funnel occupies a higher level than that of the beam at the part where the latter is joined to the hollow cylinder. Seeds are put into the funnel as the plough-boy drives the team on. The seeds fall into the depths or furrows, and are continually replaced by others.

Broadcast.

Drill.

Transplanting.

30. There is yet another method of sowing. The seeds are at first sown broadcast on a small part of the ground; a few weeks after, the young shoots or seedlings are transplanted to a larger area.

Bhadoi grains sown broadcast.

31. Sendha, sathee, and kodai are sown broadcast. The land is ploughed while under water; it is then harrowed over, after which the seeds are sown. The water is let out after two or three days, so as to prevent the seeds from being destroyed by excess of water. After about a week or ten days, when the seeds have germinated, water is again allowed into the field, to enable the crop to ripen.

32. Kodo, bajra, kurthee, and the smaller maize are also sown broadcast, and the ground finally ploughed and harrowed over. Bajra and kurthee do not require a wet soil.

Large maize.

33. The seeds of the larger maize are successively put into the furrows while the ground is being ploughed up for the last time; then the field is harrowed over. It is of course sown on wet ground, but does not require water afterwards.

Mandwa.

34. The mandwa is at first sown broadcast, then, about a month after, the seedlings are transplanted to a previously ploughed and sufficiently watered field. The mandwa does not require further water after transplanting. The sawan and tanganee are also bhadoi crops, resembling kodai in form.

Period of ripening.

35. The bhadoi crops ripen in about two months, and the sathee implies by its name that it ripens in sixty days. The bhadoi crops require weeding at least once; and in the case of the janera, the soil requires not less than once to be dug up and turned over.

36. The aghanee crops are sown at the same time with the bhadoi ones. Kodai, jowar, bajra, and kurthee, require the ground to be weeded at least once.

37. Rice is produced in two ways, the bawag and the rop.

Dhan sown broadcast.

38. *The Bawag.*—The seeds are sown on land tilled over sufficiently for the purpose, and the field is finally ploughed up. They are of course sown on wet soil, and require water afterwards.

Transplanted dhan.

39. *The Rop.*—The seeds are sown broadcast on nursery beds, and the harrow carefully passed over. In about a week they germinate, and before the month is over the seedlings are transplanted. The ploughing required in rop fields is much fuller; the turning over of the subsoil, so far as it goes, is deeper. The plants are put into the ground while it is under water, and the soil requires to be kept wet till the crop ripens.

40. The same plot of land is never made to produce bawag rice or rop rice consecutively; alternate crops are raised, otherwise it is said that the soil deteriorates. The labor and expenses are much greater in rop than in bawag cultivation, and probably the productive powers of the soil are more heavily taxed in the one than in the other.

Rubbee grains sown broadcast.

41. Of the rubbee products, masoor and khesaree are sown broadcast; for the rest, viz., wheat, barley, gram, and peas, the soil being carefully ploughed up, the seeds are sown by drill, and a hollow cylinder of wood, funnel-shaped at the top, is used.

Rubbee grains sown by drill.

Wheat and barley.

42. Wheat and barley are sometimes sown together; barley is also sown with gram and with peas. Wheat may be sown with gram. Gram and peas are never sown on the same field at the same time.

Peas and gram.

Khesaree and arhar.

43. Khesaree is sown alone. Arhar, which is sown in June and July, is reaped in January; but another kind is cut in March. It is frequently sown together with kodo, that is, in the same field.

Rubbee crops require irrigation.

44. The rubbee crops are sometimes raised without the aid of irrigation; but, generally speaking, they are irrigated, and very laboriously. Water is conveyed to the fields two or three times between the sowing and the cutting, and frequently considerable irrigation is required, previous to sowing, in order to saturate the soil with moisture for the better ploughing of the ground, and to prepare it for the better reception of the seed.

Boro rice.

45. The boro rice is grown on the banks of shallow and receding rivers, in swamps and marshy beds, and upon lands for the greater part of the year under water; the seeds are sown in nurseries about October, and removed to final places of growth in February. The harvest is gathered in April.

Cheena.

46. Cheena is sown broadcast about October, and ripens in about November and December. It is also sown in March, and reaped in May. It may be sown any time during the year, except the rains, ripening in about two months.

Two crops in the same land.

47. Rubbee crops are sometimes sown on lands yielding bhadoi products; but, generally speaking, two crops are not grown in the same field within the year. About one-sixth only of the area under rubbee cultivation also grows bhadoi crops. Of the total area yielding bhadoi products as the first harvest, about one-fourteenth grows poppy as the second crop, and almost the whole of the remainder is devoted to rubbee products.

Quantity of seeds per beegha.
Bhadoi

48. Sendha and sathee require 15 or 16 seers of seeds per beegha. Kodai and janera, three or four seers; mandwa, two or three seers.

Aghanee.

49. Kodo and jowar require three or four seers of seeds per beegha; bawag or broadcast dhan 15 or 16 seers; rop or planted dhan 30 or 35 seers.

Rubbee.

50. Barley, wheat, gram, and peas require 30 or 35 seers of seeds. Whether sown singly or mixed, the total weight does not exceed this quantity. Masoor and khesaree require 15 or 16 seers of seed.

51. About two seers arhar are sometimes added to the three or four seers of kodo mentioned above, and a seer of moong and one of green mash are also added to three or four seers of jowar.

52. Boro dhan requires one maund of seeds. A seer of the black mash is sown broadcast on a beegha, and then janera is sown on the field. The janera is reaped in September, and the mash in December.

53. Til or sissamum is frequently sown with the smaller maize, about two tolas being broadcasted by the sides of the field. The black mustard is sometimes added to masoor, and is also sown with wheat, gram, and peas. The mustard seeds, about a seer, are first sown broadcast, and then the food-grains are sown.

Oil-seeds.

54. The yellow mustard is sown alone, three or four seers of seeds are required for one beegha; the crop is gathered in February. Linseed is generally sown with masoor, also with gram, peas, and wheat. One or more long, but narrow spaces are marked out and reserved for linseed. After the field has been sown with wheat or other rubbee grain, the vacant spaces are sown with linseed.

55. The oil-seed plants are cut up about two weeks before the wheat or other rubbee crop is gathered.

56. Putwa or jute is frequently sown with the smaller maize, 20 tolas in a beegha. It is also sown with the larger maize, with kodo, and even with sugarcane. It is gathered in at different times, varying with the crop with which it is sown. It is gathered in about November, September, October, and July, respectively. That which is raised with the smaller maize, and in November, gives the seeds; 10 seers of san or hemp-seeds are sown on a beegha; san is sown in July, and cut in October.

Fibres.

57. Cane seeds are first put into a deep hole all together. In about eight days the eyes come up, when they are taken up and planted. The shoots come up after a month. A katha of canes produces 10 or 12 thousand seeds or eyes, and about eight thousand of them are required for a beegha.

Canes.

58. The planting takes place in February and March. The soil requires careful ploughing, breaking, and harrowing. The canes are put under ground when the soil is finally ploughed up, and the ground is then again harrowed over.

59. The soil is irrigated after planting seven or eight times before the rains begin, and each time the soil about the roots is gently loosened and pulverized. The field is seldom watered after the rains.

60. In Bengal it is the practice to tie or roll up the leaves from time to time with the growing stalks. This practice probably saves the stalks from being injured by strong winds; but it does not prevail in these parts.

61. A species of larva sometimes drills into the canes about October and November. I have heard of no precautionary steps being found capable of preventing the larva from destroying the canes. The same field is not generally made to grow canes in consecutive years; sometimes a plot of land is allowed to raise other crops for two years, but generally canes are grown every alternate year. The land is rarely left to fallow during the intervening year, being generally sown with a rubbee, and sometimes with an aghanee crop.

62. Potatoes are sown about November, and on lands carefully tilled and pulverized by the kodalee and the plough. In two or three weeks the soil about the roots is generally loosened and gathered up into ridges.

Potatoes.

The soil requires careful weeding; it requires watering three or four times during the three or four months that the potatoes stand on the ground. About four or five maunds of seeds or eyes are sown on a beegha.

63. Potatoes are sometimes sown on lands yielding bhadoi crops, but generally on what are termed deeh lands, lands round about the village, and therefore better accessible to the care of the cultivator, and more readily supplied with water.

Poppy.

64. The poppy is grown on bhadoi lands. The ground is carefully broken and ploughed. About three seers of seeds are broadcast on the land in about October and November, and the harrow carefully drawn over.

65. The soil is irrigated about five times at intervals of twenty days or three weeks. The opium is extracted and gathered from January and February to March and April.

66. The cultivation of the poppy has considerably increased even within the last five years.

Considerations.

67. Leaving aside the moral bearings of the question of poppy cultivation, it is doubtful whether, if the State were to give up its monopoly, the cultivation would decrease. The cultivators get on an average Rs. 3 or 4 for a seer of opium, which is sold by the State for about Rs. 16; the price per seer is therefore much higher in China and other opium-eating countries, and the margin of profit is thus wide enough for considerable competition.

68. The principal advantage of commerce consists in the imports. No part of the food of this country is at all largely imported from beyond the sea, the people raising sufficient corn for their food. The exports of this country are therefore an indication of its wealth, and the opium produced is so much extra gain, exchanged for imports from beyond the sea. They are wrong, therefore, who say that poppy cultivation is injurious to the country in a material and economical point of view.

69. It is not true that famines are frequent only in opium-growing districts. Orissa does not grow opium, and the famine of 1866 was severest in Orissa. Famines are due to insufficient artificial irrigation, and insufficient means of inland transport; to the want of reservoirs of water for irrigation; and to the badness of roads and the want of water communication. A famine would be impossible in deltaic Bengal, water for irrigation and communication being so abundant.

70. In Behar there are no running streams facilitating irrigation, and no rivers available for purposes of transport but the Ganges. The larger the area that produces other articles than corn for home consumption, the greater the wealth of the country, because the supply of imported commodities on that account is larger.

71. The principal economical evil of India is the over-abundance of the labor supply. The necessaries of life are so cheap, and the ideas of the people are so favorable to early marriage, that the labor market is always overstocked; the consequence is that wages are invariably low.

72. The action of prudential motives restraining early marriages is entirely wanting, it is even doubtful if such motives exist at all; but it is certain that the idea is rapidly gaining ground, that the State being

always bound to protect its subjects from the consequences of their own imprudence and shortcomings, is not calculated to develope them.

73. Wages are lower in Behar than in Bengal, and the food of the great bulk of the people coarser and cheaper.

74. Whenever a dearth occurs, distress is more seriously felt in Behar than in Bengal.

75. If a larger area than the present should come to be devoted to the growth of exports like poppy, cotton, fibres, &c., the labor required to produce the same quantity of corn as now produced from a smaller area would be greater; or, what amounts to the same thing, inferior lands now lying untilled will have to be cultivated. In both cases the price of grain will rise, and wages will therefore be higher than now.

76. The directions, then, in which lie the method of alleviating famines, are the spread of the practice of growing exportable commodities, the making of good and numerous roads, the improving the means of water transport, and the developing the system of irrigation.

Canals for navigating and irrigating.

77. The canals, if made largely available for navigation, will in this respect do a great deal of good.

78. They will also benefit the country in respect to irrigation. Transplanted dhan requires water; and though by great labor, and at great cost, water may be obtained for the nursery sowing, the transplanting is invariably delayed if the rains be late.

79. The seedlings also are probably not so strong as otherwise they would have been, and the subsequent growth of the dhan is certainly not so full and rapid.

80. Then, again, if the rains are insufficient, the ahars or tanks fail in supplying the necessary quantity of water towards the end.

81. A beegha of irrigated land will yield from 12 to 15 maunds of wheat; and one of unirrigated land from 8 to 10 maunds. The water brought from the Soane, and distributed during the late drought, has done great good; all people agree in admitting this; and I have heard it stated by men of competent knowledge and authority that land which never could grow rubbee has this year yielded a good harvest.

Change of opinion of the people.

82 One great advantage is due to the late drought. Before it occurred, people were always passing an opinion adverse to the canals. They have now been so much impressed with its utility, that they will not hesitate to use canal water.

83. This is a great gain.

Proportion of yield of agricultural products.

84. Wheat yields an average return of twelve to fifteenfold; boro of 50 to 70; dhan of 30 to 35; and maize of 70 to 80.

85. Potatoe yields a return of about twentyfold, a single seed or eye producing about 20 potatoes.

86. A beegha of poppy yields about 6 to 8 seers of opium; 4 or 5 seers of seeds are sown on a beegha and yield 2½ maunds of seeds.

87. Two maunds of oil are expressed out of 8 maunds of mustard-seeds, which is about the produce of a beegha; 3 or 4 seers of mustard-seeds are sown on a beegha.

88. A katha of land, sown with cane pieces, yields about 10 or 12,000 seeds or eyes; 8,000 eyes are planted on a beegha, and the return is about 35 to fortyfold. The price of the *gur* of a beegha of good canes ranges from Rs. 100 to 120; the average is about Rs. 50 to 60.

Time of germination.

89. The food-grains take root and come up in about a week; potatoe and poppy require one or two days more to come up. Sugarcanes require about a month to germinate.

Practice of irrigation.

90. Irrigation is extensively practised. The potatoe, sugarcane, poppy, and wheat all require irrigation. The dhan also requires irrigation towards the end of the rainy season, and large reservoirs are stored up with water for this purpose.

Modes of irrigating.

91. Apertures being made, water out of these storages flows of itself into the fields to be watered.

92. Irrigation by lift is practised either by means of water obtained from low stagnant pools or from wells permanent or made for the year. From running streams water is but rarely taken.

Instruments of irrigation.

93. Water is raised out of low, expansive sheets by means of a triangular basket-work thing, made of flat thin slices of the bamboo, or of a hollow semi-cylindrical figure, cut out of the palm tree, or other light wood. The triangular basket-work article has two edges raised; two cords or strings are attached to the apex, and one to each of the other two angles. Two men standing on each side of a ditch made for the purpose, and connected with the reservoir, raise and throw the water off by the base of the triangular figure.

94. The hollow cylindrical half figure has the edge at the broader end raised to the level of the edges at the sides. This end is pressed down under water by the feet, and when raised, the water goes off by the narrower end which is open. In Bengal this instrument is generally made of the palm tree.

95. The water is raised in this case on the principle of the lever and the fulcrum.

96. The lever is a long piece of wood, parallel to the semi-cylinder, and balanced over a cross-beam, supported upon two vertical posts.

97. Well water is also raised either on the principle of the lever and fulcrum, or on that of the pulley. In the case of the pulley, a pair of bullocks are used to draw up the *mot* out of the well.

98. The *mot* is a receptacle for water made of hide expressly for the purpose In the case of the balance a *dol* is substituted, which is made of iron, and is used generally in drawing water.

99. The balance, as before, is a piece of wood much heavier at the other end, either naturally heavier, or made so by the addition of clods of earth.

100. Water from storages goes to irrigate the dhan. Water from wells is procured to irrigate wheat, potatoe, and poppy.

101. When a *mot* and pair of cattle are used, two men are required, or a man and a boy. In the case of the *dol* only one man is sufficient. Another man, of course, is employed in looking after the water-course

and the field, and in seeing whether the water goes to the field, and whether it reaches all the parts equally well.

Rotation of crops.

102. There is no rotation of crops, except in the case of sugar-canes, no land being planted consecutively with canes for two years. In the intervening year a rubbee crop is raised.

103. All lands yielding a bhadoi crop yield also a second crop in the shape of rubbee, corn, or poppy.

104. A small part only of lands producing rubbee does not yield bhadoi crops; and a small part of lands producing winter dhan yields also a rubbee crop.

Manures.

105. Cow-dung, ashes, and other refuse, collected close to every cultivator's house, are the only manures. The roots and the weeds are also burnt on the land to give it greater powers.

106. Oil-cakes are sometimes used, but not generally.

107. Sheep are also hired to lie down over the soil at nights.

Tools: plough.

108. Instrument the first is the plough. Every part of the plough is made of wood, except the share. There is only one handle or stilt. There are no wheel ploughs; swing ploughs are invariably used. Scarcely any improvement has been effected in the plough within recent times, and the form now in use is probably very old.

Harrow.

109. The harrow is a mere flat piece of wood, used in covering over the seeds. It has no teeth.

Drill sowing.

110. The drill sowing apparatus has already been described, and is called a *tar*.

Digging.

111. The kodali is used in digging the ground and breaking the soil.

Weeding.

112. The *khoorpee* is used in weeding, that is, in removing weeds from the field.

Reaping.

113. The *hasooa* or sickle is used in cutting crops.

114. The stocks and sheaves are conveyed to the threshing-floor, a plot of land set aside and cleared for the purpose.

Threshing.

115. A post is attached to the ground at the centre of the floor, and the sheaves, when dry, are placed around. Bullocks are gathered round the post, and all together made to move round the post. This treading is called threshing. When the treading has been pursued for some time, the hay and stalks are separated and put over the treaded corn, and the threshing re-commences till the operation is complete.

Winnowing.

116. To clear the corn from the chaff, a very simple process of winnowing is followed. The grain is taken up in a basket and slowly thrown downwards.

117. If there is a sufficiently brisk wind, it carries off the chaff, and the grain falls down purified; but if there be no wind, a person

uses what is called the *soop* over a heap of the grain, to produce a movement of the air, the heap being from time to time turned up.

Cleaning.

118. The cleaned corn being taken home, the husk is separated off the corn, when required, by means of a *dhenkee*, or of a large pestle and monster-shaped thing made of wood.

119. The husk is removed by women by means of the *soop*. By means of a particular and repeated motion, the husks are gathered and thrown off the *soop*.

120. Rice, husked or cleaned, after being steeped in hot water, is called *usna* rice. The other is called *arwa* rice.

Exports.

121. Of the articles grown in this district, barley, gram, and arhur are conveyed to the other side of the Soane and the Ganges. Gram is also conveyed to the up-countries; wheat is conveyed both up and down.

Canes.

122. Gur and sugar are also exported There are several kinds of canes; one is the bhadoi, which is cut in Kartick; the *pausahee*, *mango*, and *cheeneya* are all cut in Magh. The bhadoi contains a fair portion of saccharine matter, but the juice is proportionately rather small. The *pausahee* contains a good deal of juice, but the saccharine matter is small. The *mango* and *cheeneya* contain juice and sugar, both in abundance, the *mango* being the most generally grown, and the *cheeneya* being the most sugary kind.

Extraction of juice.

123. The ordinary method of pressing the juice out of the canes is extremely simple and coarse.

124. The screw pressure method is, however, gradually coming into practice. Gur and sugar are exported.

Cotton.

125. Neither tree cotton nor herbaceous cotton is exported. There are two kinds of the herbaceous; one is the *Rarhya*, of which the plant is three or four feet high, a maund of produce yielding about 10 seers of cotton. This is sown in October and November, and requires continual irrigation. The pods ripen about April and May. The other is *Heontee* or *Jagger*, five or six feet high, requiring no irrigation. It is sown in June, and the pods ripen in March and April. A maund of produce yields about six seers of cotton.

126. The Rarhya sells at about 2½, and the other at about 3 seers per rupee. The seeds of the Rarhya are smaller. Both are sown broadcast; the Rarhya with peas and masoor, and the other with arhur and castor-oil seeds. Cotton is not exported.

Tobacco.

127. Tobacco is raised in the south-western pergunnahs, but not exported. Home-grown tobacco is mixed with tobacco imported from Tirhoot, before being used.

Pân.

128. Pân or betel is imported from Gya, and also from Tirhoot.

129. Rice and salt (manufactured) are largely imported from the low countries. Mineral salt comes from the Punjab.

130. The principal exports are oil-seeds and gram and pulses; they are all exported to Bengal Wheat is exported to the north-west.

Imports.

131. The principal imports are rice and salt (manufactured) from Bengal, and mineral salt from the Punjab.

Means of conveyance.

132. The means of transport are boats, carts, and cattle; also the rail, carts, and cattle are used for conveyance towards the south and south-east; carts and boats for Benares and Mirzapore; boats for Bengal. The rail is used for conveyance both up and down.

Roads.

133. There is only one metalled or pucca road, I mean the Grand Trunk Road; all the other roads are kutcha, and are only considerably used during fair weather.

134. Almost all the market places, marts, posts, and towns are connected with each other, but the roads all run from north to south; there is not a single cross-road. I recommended the making of a road from Mohanea *viâ* Kochus and Dinareh to Bikramgunge. It has been sanctioned among others, and I am now engaged in taking up the land.

135. The ordinary food of the people is almost entirely vegetable.

Food.

136. Rice, both that reaped in Aghun and that reaped in Bhadon is the staple food of the people. It is the ordinary diet of all classes. Wheat is also generally consumed by the higher classes. The higher classes take two full meals, the lower orders one full meal of rice and one meal of suttoo.

Cereals.

137. Rice is boiled before consumption Wheat is made into flour and consumed in the form generally of unleavened bread; mandwa is consumed in the shape of bread; barley is made into flour and suttoo; maize is pounded into suttoo; bajra, kodo, and kodai are consumed as rice; rice is also consumed as choora.

Potatoes.

138. Potatoes, which in western Bengal form a general dietetic article, are not largely used here.

Lentils and pulses.

139. Gram and peas are consumed both in their ordinary state and as suttoo. The lentils are taken with bread and rice in their ordinary state, and sometimes pounded and made up into cakes.

Vegetable oils.

140. The oily substances used are mustard and sissamum. Poppy-oil is also used for culinary purposes; but the use of mustard-oil is not so general as in Western Bengal. The mustard-seed is also put into chutnees and pickles.

Sugar.

141. Of saccharine substances, the mango is the most generally used being the most plentiful of all fruits. Then comes sugarcanes, with their preparations of gur and sugar; jack-fruits, bacls, and water-melons.

Mucilage.

142. The pumpkin, the gourd, the radish, and other pot herbs; the onion, the garlic, and other succulent vegetables, and the different sâgs are

mucilaginous substances used in general. Sâgs are more extensively consumed in Bengal.

Acid—bitters.

143. The tamarind is the principal acid, and the karaila the principal bitter article used for dietetic purposes.

Condiments.

144. The huldee, the chilly, the black pepper, the zeerah, and the dhunya are the principal condiments.

145. Cereals, other than wheat and rice (aghanee), are chiefly consumed by the lower classes, and in time of dearth they form the principal resources of the labouring classes. Amongst the pulses, the khesaree is chiefly in use amongst the poorer classes.

146. The use of vegetable oil is not general.

Fishes.

147. The use of at least one kind of animal food, viz., fish, is universal in Bengal; but here it is much less general: hence the use of vegetable oils is much smaller.

148. Fishes of the carp and cod families are found. The craynon or chingry is also found. The garai (the Bengal lata) is more prized than in Bengal.

Meat.

149. The consumption of beef is confined to towns where the Mahomedan element is always stronger —at least in Behar—and where religious intolerance and the restraints of opinion are weaker than in the interior. The lower orders of Mahomedans also eat buffalo meat.

150. The sheep is less generally slaughtered than the goat. Goat flesh is consumed by Mussulmans and by some higher classes of Hindoos.

151. Though meat is rarely eaten by Hindoos, dahee, made from milk, is a general article of diet, being consumed by all classes. Milk is part of the diet of all classes, except the lowest, and *ghee* of the superior classes generally.

152. Pigs are eaten by the lowest classes of Hindoos.

Fowls.

153. The common fowl forms a general article of diet among Mussulmans. The common duck is less abundant than in Bengal. The quail is not found in Bengal.

154. Eggs are consumed by Mahomedans—boiled, fried, and in confectionery.

Cooking utensils.

155. The cooking utensils are, among the labouring classes, all earthen; among the higher classes earthen, stone-ware, and metallic. The metal chiefly used is brass, a few iron utensils are also used. There are no other cooking utensils, except a slab and muller.

Drinking.

156. Except in towns, and in public and private festivals, the use of strong drinks is rare. There is, however, a class less numerous than in Bengal, who affect English habits and mimic English tastes. This class drink imported spirits and wine, but is entirely non-agricultural.

157. Smoking is almost universal, and chewing tobacco, which is absent in Bengal, prevails to a large extent.

Smoking.

158. Agricultural laborers in Western Bengal consume a large part of their time in smoking; but so much time is not lost in Behar, as in the fields smoking is replaced by tobacco chewing. Smoking is more frequent in Western Bengal than Behar.

Pân.

159. The betel or pân is consumed by the superior and middle classes.

Drinking water.

160 Drinking water is drawn entirely from wells.

161. The people in general have few luxuries. Pân and tobacco are the only ones.

Dress.

162. The dress of the labouring classes is extremely simple. A single dhotee is the ordinary dress of all classes, to which are sometimes added, especially amongst the wealthier classes, a loose chudder and a mirzai or upper garment. The cap and shoes are seldom used by the poorer classes Among the middle and high classes the cap and shoes are generally worn, but the mirzai is not so generally used, though it is considered a necessary part of the full dress. The turban is also frequently worn.

163. A laborer in general has only two dhotees in the year. A cultivator of the soil, superior to the mere laborer, has a larger supply. But one angoucha and one chudder, besides the two dhotees, complete the wardrobe of the peasant for a year. The children of laborers go almost entirely naked; a single dhotee is the utmost they can get. A superior laborer, however, frequently supplies mirzais to his children.

Dwelling-houses.

164. The dwelling-houses of the labouring classes are always made of mud walls and chuppers. The wood-work is small, bamboos being mostly used for the chuppers.

165. There is but little of iron used. Even amongst the middle classes iron is very sparingly used.

166 Houses have only one entrance in front, and are generally tiled.

167. The labouring (including the cultivating) classes have in general one apartment, sometimes two, seldom more. Food is cooked in the open compound in front of the sleeping apartment; but in the rains a shed is raised. Cattle are located in another shed, put up at the entrance to the compound. Sometimes another shed is raised, to be used as a sitting-room.

168. The form of the houses clearly indicates the prevalence of the custom of separation of the sexes.

Furniture.

169. The furniture consists of the cooking utensils (one for bhat or rice, and one for dâl or pulses; sometimes a third for vegetables), of a few earthen, stone, and brass dishes, a few mats, and often one or two charpoys.

170. Grain is stored in large earthen enclosures of a cylindrical form, raised above the ground, and inside the dwelling-house.

Fuel.

171. Cow-dung is the general fuel; the leaves of trees are also used. Wood is only sometimes used.

172. During the cold weather fires are kept up. One or two quilts are used in a family, sometimes stuffed with cotton, but frequently without cotton.

Condition of laborers.

173. The labouring classes are poorer than in Bengal. The ordinary agricultural laborer in Western Bengal gets as high as four annas a day. Here he does not get more than two annas a day. The food of the laborer is less varied than in Bengal; his furniture is poorer and cheaper; his dwelling-house is less costly and less comfortable; his dress is coarser though fuller, the mirzai being seldom used in Bengal even by the middling classes as a part of their ordinary full dress. This is, however, merely a custom, and does not at all indicate greater comparative poverty.

174. For in Bengal the laborer lives upon more nourishing food, and can afford to have better comforts. During winter they have quilts stuffed with cotton; their mats are superior and more numerous; their cooking things are superior and more abundant; the use of vegetable oils is less frequent in Behar than in Western Bengal, while rubbing it over the body is unknown, the climate not requiring such a practice.

Bathing.

175. Bathing among the superior classes is as frequent as in Bengal, but the Mahomedans of Behar differ in this respect from those of Bengal, bathing only once or twice a week on the whole. The lower orders bathe less frequently than in Bengal.

176. The washerman is seldom in request amongst the lower orders. The dress worn, especially by women, abounds with dirt and filth.

177. The same dress is worn night and day, and this habit prevails amongst the middling classes, and even amongst the women of the superior classes.

Out-door amusements.

178. There are no out-door amusements for the adult laborer. The higher classes, but only Rajpoots and Mussulmans, indulge in riding, shooting, and hunting.

In-door amusements.

179. The adult women have no in-door amusements. The men have the *chousar* or dice and the card, but only among classes superior to the laborer; chess is rarely played even by the highest classes.

180. There are no amusements giving bodily exercise.

181. Generally speaking, the people are incapable of continued labour, probably owing to the climate, the heat, and the rains interrupting labour in the fields.

Wages.

182. Manufacturing wages are higher than agricultural wages. But the wages of labour are, as a rule, decidedly low. The food is cheap, the dress is scanty, and the climate is warm. Cheap living causes greater procreation by inducing earlier and more numerous marriages. The labour market being consequently always full, wages are invariably low.

183. There are no prudential checks to the increase of population. Marriages are contracted at the earliest possible development of the procreative capacities, and society looks with disfavor on those who do not marry and do not have children.

Increase of population.

184. What economists call natural or positive checks are only temporary ones; and wars, famines, and diseases are gradually decreasing under the influence of the British rule.

185. The standard of living, except amongst the rich and the noble, is always very low. The women especially are without personal comforts; their clothes are the dirtiest, and for want of a second suit they cannot bathe and wash themselves.

186. Girls are married when they are scarcely 10; boys when they are only about 14 or 15 years old. The married couple have children when their labouring capacities, especially those of the wife, have scarcely been developed. At the same time she performs all domestic labor, and is generally required, at the sowing and reaping seasons, for out-door labor. The fact is, that there are no checks to the multiplication of labor in India.

Marriages.

187. Almost all the economical evils of India are referable to the over-stocking of the labor market.

188. The people must learn to rely upon the resources of their own exertions; they must learn prudence in their domestic and social habits. From motives of benevolence, however, the labouring classes are not allowed to feel and suffer the consequences of their own want of exertion and prudence.

189. The result is that the idea of the necessary connection between exertion and comfort, at all times weak in India, has further been shaken; and the feeling of the necessity of self-reliance, never very strong, has been greatly weakened.

190. It is more important that a people should of themselves be able to go through a period of famine without the aid of the State, though with considerable suffering, than that, though unable to endure a famine, they should be able to go through it with only slight suffering when aided by the State.

191. The measure of progress is not how much comfort they enjoy, but how much comfort they enjoy by means of their own unaided efforts.

192. It is of course impossible—and it would certainly be wrong—for a Government to stand still and see hundreds and thousands dying; but measures should be taken so as not to seriously shake the feeling of self-responsibility—the idea that a certain train of consequences will follow a certain course of conduct.

193. Help organized by the Government has the same depressing and dwarfing effect even in the most educated countries.

194. In India there is absolutely no education, except a little teaching in the Hindi letters and in arithmetic; nine-tenths of those who have received instruction forget the letters soon afterwards.

195. Education even amongst the superior orders is not high; reading and writing are scarcely in vogue. There are some Brahmins who

Education.

can read, but the Kayeths are always the reading classes. Putwarries and village accountants are invariably Kayeths; the stock of their knowledge, however, is very limited.

196. Even the highest classes have very few books; extracts from the *Mahabharuth* and the *Ramayan* form their only literature. Those who know Persian and Urdoo have a larger range, but consisting chiefly of poetry and narrative.

197. The labouring classes have no literature whatever. The dramatic plays and farces, so common in Calcutta and Western Bengal, are unknown in Behar and Hindoostan proper.

Press.

198. There is only one printing press in Shahabad. It now belongs to a Sheea Mahomedan family of Arrah. It issues no important publications; but latterly a so-called newspaper has been started. The tone of a newspaper of course cannot rise beyond the general intelligence of its ordinary readers. How much this intelligence, even amongst the higher, the so-called generally educated classes, requires improvement and reformation, will appear from an article in the newspaper which ascribes personal injuries and loss of property occasioned by a fire, to the disrespect shown in dress and fineries to the memory of Hossain, whose death terminated a series of hostilities between two contending political parties in the infancy of Islam.

Tone and intelligence.

199. The district of Shahabad has as yet produced no Bachelor of Arts.

Condition of labouring classes.

200. The condition of the lower classes is much inferior to that in Bengal. There the food of the laborers is partly animal, though chiefly vegetable. Here it is entirely vegetable.

201. Wages are higher in Bengal; almost twice as much in Western and Southern Bengal. Wages of all kinds, skilled or unskilled, manufacturing or agricultural, are invariably higher.

Rents for homestead and garden lands.

202. In Behar rents are not paid for homestead lands, whereas in South-Western Bengal, rents paid for homestead lands are higher than for other lands; for garden lands the rates are much lower in Behea than Bengal. Notwithstanding these points of difference in favor of Behar, the lower orders are more comfortable in Bengal.

203. But what is much more important is the fact that they are less subject to the interference of zemindars.

Bhaolee tenures.

204. Owing to the prevalence of bhaolee tenures, the cultivator is liable to constant interference, which takes away from his desire of exertion. It diminishes his sense of self-responsibility, the only real education which most minds receive.

205. I do not know how cultivators in Eastern Bengal stand in this respect, because the system of sub-letting, so freely adopted, tends to diminish the cultivator's savings. But in Western Bengal, the system does not at all extensively prevail, and the cultivator is not liable to the zemindar's constant interference, so that dearths, whenever they occur, are more severely felt in Behar than in Bengal, because the labouring classes are more helpless.

206. The system of sub-letting does not prevail in Shahabad and in Behar in general. The zemindar has his agent, tehsildar, &c., but there are no middle-men with permanent rights in the soil.

Sub-letting.

207. It is probably due to the system of absenteeism which prevails in Bengal more than in Behar; for in Bengal, more than here, land has changed hands and passed away from the resident gentry to the darogas, serishtadars, &c., generally non-resident.

Absenteeism.

208. The prevalence of bhaolee tenures also proves that in Behar zemindars are more often resident proprietors than non-resident.

209. There are no bhaolee tenures in Bengal, but in Behar they are very general. The southern pergunnahs are cultivated chiefly on bhaolee tenures. The banks of the Ganges are held on money rents.

210. Lands growing poppy, canes, vegetables, and cotton, are invariably held on money rents. Wheat and other rubbee lands are cultivated generally on money rents. Dhan lands generally pay rents in kind.

Money rents.

211. The division of the produce varies. In bawag, dhan is sown broadcast, the proportion is nine shares to the cultivator and seven to the proprietors. In transplanted dhan and wheat requiring no irrigation, the ratio is three to two. In wheat lands requiring irrigation, the ratio is two to one. In practice, however, the shares are much less favorable to the ryot.

Division in kind.

212. Ryots with permanent and saleable rights are few in number, except in the pergunnahs of Arrah, Behea, and Bhojepore, where a considerable number of tenants claim such rights.

Classes of tenants.

213. They are chiefly to be found in estates belonging to an ancient, rich, and powerful family, such as the family of the present Rajah of Doomraon, and the late Baboo of Jugdispore.

214. Ryots with rights of occupancy are of course more numerous, but the two rights are often confounded together by the people.

215. Both these rights have a greater tendency to exist in estates belonging to the Government than in private ones, because in private estates they are soon put to the test; whereas in public estates it is the business of nobody to do so, and the putwarees and other parties who have any real knowledge of the matter soon become interested in favor of the claimants.

216. Rents have sensibly increased during the last few years, partly due to the security of property afforded by the British Government, partly to the improved facilities for export, and partly to the increase of population.

217. Landed property fetches high price, partly because the facilities to its transfer are considerable, and partly because, owing to ideas of gentility and comfort, it is more coveted after. Estates are sold at from 33 years' to 13 years' purchase, never less than 11 years, and sometimes so high as 66 years' purchase.

Value of landed property.

218. In Bengal the price of landed property is less high. The facilities for its transfer, at least in Calcutta and Western Bengal, are the same; but I believe that landed property is not so much sought after, the ideas of comfortable and genteel living not being so high as in Behar; I mean among the superior and wealthier class.

219. In the capital itself houses and lands are sold at so low as 10 or 11 years' purchase. I do not know how far up the price ascends; but I believe it never exceeds 15 or at utmost 20 years' purchase.

Rents.

220. Poppy lands are held from Rs. 4 to Rs. 16 per beegha; sometimes the rent amounts to Rs. 20 per year; lands producing canes yield from Rs. 3 to Rs. 6 per beegha per year, but sometimes the rent is Rs. 8. Vegetables also yield a high rent, being raised generally on lands near large tenures, and possessing facilities for irrigation as well as transport.

221. In other cases rent is fixed, not with reference to the kind of produce grown, but with reference to the situation and quality of the soil.

Extent of holding.

222. The extent of tenants' holding varies considerably. I know of holdings so high as 200 to 300 beeghas, and there are holdings so low as only half a beegha to one beegha.

223. The average area of a holding is about 8 to 10 beeghas. The most prevalent area is about 5 to 20 beeghas.

224. The largest holdings are to be found in the Dearah; sometimes holdings on the borders of the Ganges are more than 400 beeghas. These are in reality farms, the processes of ploughing, sowing, &c., being conducted by day laborers, or more frequently by sub-cultivators, under the superintendence of the tenant farmer.

Ploughs and bullocks.

225. On the Dearah side a tenant holding about 30 beeghas may do very well with one plough and a pair of bullocks; but in places far remote from the Ganges, an area of 10 beeghas is the largest that is manageable with one plough and a pair.

226. Sometimes three bullocks are kept in place of two, one being a strong animal, and the other two rather old, or young, or otherwise weak. Four bullocks are seldom used for one plough.

227. Ryots are in the habit of uniting to plough each others lands. Ploughs are also borrowed by them from each other. Ploughs, with a pair each, are also let on hire, especially to the factories, at four annas a day, or two annas per beegha, exclusive of the ploughman's wages. If the soil is sandy and soft, 2 beeghas could be ploughed up once during the day.

228. But if the soil is clayey and hard, a lesser area would be ploughed, and the charges would be proportionately higher. In many cases the soil requires to be ploughed up more than once before sowing, owing to the inferiority of the ploughshare.

Ratio of bullocks and ploughs.

229. I do not know of ploughs being let on hire without bullocks. The number of bullocks in Baragaon, or Arrah and Behea, is 46,105; and the number of ploughs 20,225. There are, therefore, more than two, and less than three bullocks for each plough on the average.

230. Dividing the total cultivated area by the number of ploughs, we have about 18 beeghas for every plough. My personal enquiries make the average area cultivated by a plough to be about 15 to 20 beeghas.

Ratio of area and ploughs.

231 Cows, calves, plough-bullocks, and other bullocks are to each other as 20, 13, 61, and 6. Calves in Behea are only half as much as in Arrah. Bullocks, other than those for the plough, are nearly twice as many in Arrah as Behea, probably because there are fewer market places and inland ports in Behea than in Arrah.))

Ports.

232. Sinha and Barahra, opposite Revilgunge and Chupra, are both in the Arrah pergunnah.

Marts.

233. Matookpoor, in the Arrah pergunnah, is known for its monthly traffic in cattle. There is a monthly fair held there for the sale and purchase of cattle.

Fairs.

234. There are three more fairs held in the district of Shahabad. One is held at Jakhnee, in pergunnah Dunwar, in March. Dealers in cattle, dealers in cloth, and braziers attend the fair; but condiments form the chief article of traffic.

Cattle.

235. Two fairs are held at Barahpore, in pergunnah Bhojepore, one in February and another in April. Transactions in cattle and horses form the principal business. Dealers in cloth and braziers also attend in large numbers. Large numbers of cattle are brought to these fairs from Tirhoot, Chupra, and other adjoining districts.

236. Buffaloes are sometimes used in drawing carts. From the milk of the female *ghee* is made.

237. The female buffaloes have always appeared to me weakly and not fully fed. Cows are more cared after, but plough-bullocks are not so well attended to as in South-Western Bengal. The provender of cattle consists of hay and straw, and chaff and husks while at home; oil-cakes are also mixed with the fodder. In the fields they are fed upon grass.

238. Plough-bullocks are generally worth from Rs. 10 to Rs. 40 each. Sheep and goats are sold at Rs. 1-8 to Rs. 3 each. Fish is sold at from half an anna to two annas per seer. Rice is ordinarily sold at 22 seers; it is now sold at 11 seers for the rupee.

Expenses and living of laborers.

239. An adult laborer would consume about 1¼ seer of food daily, that is, of rice and dâl. At the lowest estimate of a family, four persons, male and female, adult and young would consume about four seers of rice and dâl, or three annas daily. Besides these, there is fuel to be obtained for cooking. Clothes for the year also form an additional item; and the daily income would in no case, in such a family of four persons, exceed 4 annas per day. It is clear, therefore, that even in times of ordinary plenty the labouring class has to live upon the harvest subsistence; such a hand-to-mouth living of course would not do in times of dearth or of scarcity.

240. While the income continues the same, or naturally in fact decreases, the cost of living doubles. During the last fifty years the prices of all articles of food have gone up, generally doubled, and sometimes more than doubled.

Rise of price.

241. Mere increase of price, however, is no criterion of increase of poverty and misery. The condition of the peasantry of Bengal, both eastern and western, has considerably improved within the last fifty years, and a famine in Bengal has almost become an impossibility. (*a*).—A general drought in the whole of Bengal proper is not possible. (*b*).—The means of transport by water are very superior. All these circumstances tend to make the Bengal peasant and working man better able to go through a period of dearth.

Bengal peasant.

242. Generally speaking, the Bengal peasant is more dependent on his own resources, and less servile to his landlord.

243. This is due to two facts—

(*a*).—Landed property has changed hands in Bengal more extensively than in Behar. To the old proprietors the tenants paid a willing deference, due to their antiquity, their parentage, and their historical renown. The new families which ousted them had no high parentage to boast of, and no traditional fame; they have scarcely even now emerged from their money bags. This is the first cause.

(*b*).—The second cause is that the new proprietors in Bengal gave up the *bhaolee* system, which is more suited to resident and influential landlords, and adopted the *nakhdee* system, which is more in accordance with their tastes and habits. Money rents decrease the direct interference of the zemindar with his tenants, and they come to feel that the products of their labor are entirely their own.

Behar peasant.

244. In the bhaolee system the ryot is constantly harassed. In Gya the *danabundee* system chiefly prevails, and the estimate made is invariably in favor of the proprietor. In Shahabad the *batai* system alone prevails; but even under this system the perquisites of the putwaree and the gorait, and other members of the manorial establishment, take away a good deal from the ryot's share.

Illegal cesses.

245. Illegal cesses are seldom refused; but in the cases of Rajahs and ancient zemindars, there is a traditional respect which almost converts all such cesses into voluntary ones. Such a traditional respect being wanting, the criminal courts of Eastern Bengal are called upon to decide numerous cases of illegal exactions by zemindars from their tenants. Transfers of estates from old hands to new ones are, on the whole, beneficial to tenants and cultivators.

Joint property.

246. The division of the same village amongst several partners, if the several portions be held in joint-proprietorship, is in some respects detrimental to the tenants—it puts them to greater expense, both of time and money; but in other respects it is probably not injurious. The opposition which is sure to spring up between the several partners (the division itself is the result of such an opposition)

is calculated to raise the self-respect and influence of the tenants. But whether this be a gain or not, the compulsory appointment of a joint-managing agent would be a limitation of the rights of private property, not warranted by any particular misconduct on the part of the several proprietors. People should be left to manage their own business as much as possible; this is the only available discipline which most persons receive.

247. That benevolence is certainly shortsighted, and in the end impolitic, which, for the sake of giving present comfort, takes away the means of future development.

Putwarees.

248. The class of putwarees has without exception degenerated; they were public officials in times past, but they have now become entirely in practice, and almost so in theory, the servants of zemindars. To those who are desirous of having a greater control over zemindars, this is an evil; but the tendency of recent measures has probably stopped the degeneracy in its progress.

Hindi or Urdoo.

249. The introduction of the Hindi character will lessen the influence of the putwaree class by increasing the number of Hindi-knowing people.

250. The Bengalees, as a people, are remarkable for their knowledge of the laws, and the tenacity with which they cling to their rights. The reasons seem to me to be obvious; in Bengal the laws are published in the ordinary vernacular of the country; in Behar they are published in a language which is not the vernacular of the people, but only of a limited class.

251. The introduction of the Hindi has almost invariably been highly valued by the people, and will be the means of giving the peasantry a greater insight into their rights, and a better knowledge of the judicial procedure.

252. As a vehicle, however, of superior instruction, the Hindi will at first fail to satisfy the thoughts and aspirations of the educated of the present age.

253. Moreover, in the present infant state of Indian civilization, it is impossible to have a democratic language. In a few years the Hindi of the educated classes in Behar is sure to become, like the Bengali of the educated classes in Bengal, a language written in the ordinary characters, but abounding in words and phrases, meanings and suggestions, altogether far above the comprehension of the unlettered and unlearned classes.

254. At all events the Mahomedans, being so small a part of the community, have no right to impose their alphabet on the majority of the people; and I have no doubt that, on the whole, the measure would be beneficial, however much it may, in the beginning, injure the higher class of Mussulmans.

Proportion of Hindu and Mussulman.

255. It is remarkable that while in Bengal the rural Mussulman population bears a greater ratio to the rural Hindoo population, than the municipal Mussulman population does to the municipal Hindoo

population, the proportions are exactly the reverse in Behar—the Mussulman element being greater in the town than in the country.

256. I have taken the trouble of examining the returns for all the districts, as published in the census report, and the rule is invariable. The constancy of the ratio points to some general law which will be for a future census to disclose. But I believe the explanation will be found in the greater impatience of control, and the greater spirit of independence of the Mahomedan character.

257. That such is the case, will appear from the insurrections which have occurred in Bengal within the last 15 or 20 years.

258. The major part of those concerned were Mussulmans, and in the last agrarian insurrection, it has been asserted that the Hindoo joined its ranks under coercion. However much we may deplore the causes that gave rise to the insurrection, they augur well for the future welfare of those who entered willingly into its ranks.

259. This spirit of combination, as it developes, will teach the people the art of municipal self-government.

Punchayets.

260. There is the system of punchayets in vogue in almost every village of importance, but the multiplication of judical courts has diminished the necessity of their existence, and their composition was too rough to have been made use of for the public good. The punchayets have two other branches under their control—religion and morals, customs and manners.

261. The tendency of English education, of English government, and of *laisser faire* principles in general, has of late rendered their duties under these two heads more than compensate for the loss of their duties under the head of arbitration and justice.

262. Public opinion has been stirred of late, but stirred chiefly in theological matters. Among the Mussulmans, a great ferment is going on, and the cause of it is Syud Ahmed Khan's writings and doings. Baboo Peary Lal is endeavouring to curtail the expenses incidental to marriage amongst the Hindoos.

263. Political excitement is entirely wanting. Direct taxes are of course disliked, and the corruptions incidental to the collection of the income tax had made the people almost disaffected. But disaffection is rarely displayed, and the powers of combination are almost unknown in Behar.

264. The measures of the Government, taken with reference to the famine, are all believed to be taken for the purpose of making a *coup d'etat* on Nepal. The suspicion has been widely and silently circulated. People talk of it among themselves with eagerness and almost with pleasure.

Feeling towards Government.

265. The great body of the people have been immensely benefitted by the British Government. The zemindars have to pay only fixed sums at stated times. But first of all is the security of property, so frequently violated under the old Government. The improvement in this respect is immense. The people are better protected from foreign aggressions; they are also better protected as against each other. The value of the property has considerably increased; while exports and imports have also greatly multiplied.

266. Notwithstanding these and other manifold benefits, the people, generally speaking, bear no love to the British Government. This is probably natural. Difference of colour, of dress, of language, of religion, and of manners, continue to keep the governed estranged from the governors.

267. I am certain that the people are grateful, but they bear no love to the British rule. On the contrary, every war, and every rumour of war, is eagerly watched by them, and reports against the fortunes of the English are willingly believed and readily exaggerated.

Climate and health.

268. The district of Shahabad has a salubrious climate. The general health is good. The cold is moderate, but the heat is intense. Cholera frequently appears, as also small-pox. The dengue largely prevailed in 1872.

269. People say that the salubrity of the climate has latterly declined, and they refer the decline to the destruction of the general drainage of the northern parts of the country due to the railroad. There is, in my opinion, a great deal of truth in this belief.

Hypothesis of ill-health being due to want of nourishment.

270. The most unhealthy places in Bengal are Purneah, Dinagepore, Rungpore, and Chittagong. The inhabitants of Chittagong lead a maritime life, and their wages are comparatively high. It is also the district of small properties, so that a great portion of the people hold landed properties of their own. The climate of Chittagong, however, is specially detrimental to health.

271. The other three districts are rice-exporting districts like Backergunge, and the people are much better off than in other districts. I have been in Purneah, and I have no doubt that the people live more comfortably there than elsewhere. These three districts are also unhealthy. It is not, therefore, that the people are liable to fever because their food is scanty.

272. The people of the districts of Burdwan and Hooghly have better food, and more food generally than the people of Shahabad and Gya; but the general health in these latter districts is far superior.

273. There are other facts which militate against the hypothesis of the scanty nourishment of the people of Burdwan and Hooghly being the cause of ill-health. A large number of people from these districts, and Nuddea and 24-Pergunnahs, are employed in Calcutta, either as petty traders, artificers, or workmen, thus increasing the sum total of the purchasing, and therefore of the nourishing, power of their districts.

274. That the climate of all districts under the Himalayas is bad, shows that the climate is affected by the mountains. Similarly, that fever in the Burdwan division prevails chiefly in districts through which the railroad passes, and has gradually ascended from Hooghly to Beerbhoom, shows that the climate has probably been affected by the railroad.

Dispensary attendance.

275. The attendance at the dispensaries is fair; but the faith in the old *missirs* and *hakeems* is still strong. In surgery the new practitioners have entirely supplanted the old, and it is chiefly in the higher classes that the faith in *hakeems* is still large, for the lower classes cannot afford to

lose so much time (and therefore so much wages) which a *hakeem's* treatment necessarily causes.

276. In a contest between knowledge and practice on one side, and prejudice and quackery on the other, the result is still doubtful. Such is human nature.

General character.

277. The character of the great body of the people in Shahabad or Behar generally is superior to that of the people of any district in Bengal. The untruthfulness of Eastern Bengal is well known. In Shahabad or Behar generally the regard for truth is less exceptional. Throughout Bengal there is a passion for underhanded activity, which is almost unknown here in Behar. Litigation is far more common in Bengal than in Behar; while personal courage, so far as it goes, is stronger in Behar than in Bengal.

278. The common peasant or workman is more industrious and less wasteful of time. The superior classes are less miserly and more expensive in their habits.

279. The superior Mahomedans, as a rule, are less economical, and more wasteful of money, both in Bengal and Behar, than their neighbours. This is the reason that, notwithstanding their earnest desire, they cannot obtain a fair share of English education. It is, however, their own fault. They must learn economy and abstinence.

280. I do not know that the lower Mussulmans are less economical than Hindoos. But in their case the too minute sub-division of property filters away the wealth, and thus no ulterior advantage is gained. This is the reason that rich Mahomedan families scarcely ever live beyond two generations.

281. The remedy for this evil is that the Mussulmans should bring themselves to make testamentary depositions of the whole of their property, as they have brought themselves to take interest for money lent.

282. The interest of money is still very high; generally 12 per cent; sometimes 24 per cent. This normal high rate is an indication of the general poverty.

Manufactures.

283. There are no large manufactures in these pergunnahs, except those of indigo; sugar is manufactured at Jugdispore and Bindoulia, in Behea, and Gujrajgunge in Arrah, and other places in Sasseram.

284. There are no manufactures of silk, paper, or tea. There are artizans making paper in Sasseram. There are no cotton, wool, or jute manufactories; but there are independent artizans making country cloth and carpets. Artizans in cotton are first in number: then come artizans in wool and jute; the rope from jute is made chiefly by women. Cotton artizans are called jolahas. The gareree or shepherd makes blankets and the jolaha woollen carpets.

285. There are no large manufactories of iron, brass, or copper in these pergunnahs; but considerable works exist at Jugdispore, Sasseram, Nasrigunge, Buxar, Sarainja, and Arrah.

286. There are carpenters doing considerable work, but not employing any very large number of workmen.

287. There are no manufactories of lac; but there are numerous independent artizans.

288. There are no mines and quarries in these pergunnahs, except some unimportant kunkur quarries, worked by the officers of the Public Works Department.

289. Statistical enquiries having been stopped exactly at the beginning of the cold weather, these notes on manufactures are necessarily imperfect. I had hoped to complete them during the winter, but I was then engaged in other duties.

S. D. H. AHMED,
Deputy Collector.

2.—*Fiscal Survey and Assessment Area in Acres.—Part I.*

Names of Pergunnahs.	Cultivated Area.			Uncultivated Area.				Assessment.		
	Irrigated by private work.	Un-irrigated.	Total.	Grazing.	Culturable, but fallow.	Not culturable.	Total.	Total area assessed.	Gross amount.	Rate per acre on total area of settlement.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Rs. A. P.	Rs. A. P.
Sasseram, acres 50,937-0-38¾...	8,721 3 36¼	7,190 4 12	15,912 1 10½	468 1 10¼	2,458 2 10	32,098 3 27¼	35,025 3 7¼	539,565 2 19	2,20,975 12 5	8 8 0
Rohtas, acres 145,288-1-38¼ . .	6,189 2 9¼	13,536 3 35¼	19,726 2 4¾	9,203 0 30¼	15,765 3 3¾	100,592 3 39¼	125,561 3 33¼	332,022 2 0	26,100 1 1	1 3 0
Chynpore, acres 249,648-2-15¾	109,549 3 29¾	29,173 1 32¼	138,723 1 22¼	22,418 1 38¼	30,988 2 14¼	57,518 0 20¾	110,925 0 33¼	657,689 3 32	3,28,834 1 7	7 10 0

2.—*Fiscal Survey and Assesment Area in Acres.—Part II.*

1	2	4	5	6	7	8	9	10	11	12	13	16
District.	Names of Pergunnahs.	Cultivated Area.			Uncultivated Area.					Assessment		
						Cultivated.						
		Irrigated by private individuals.	Un-irrigated.	Total.	Grazing.	Cultivated within 3 years past, but lies fallow.	Not cultivated within 3 years past.	Un-cultivated.	Total.	Total area assessed.	Gross amount.	Rate per acre on total area of settlement.
Shahabad		Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Rs. A. P.	Rs. A. P.
	Chowsah, acres 26,752-3-30¼	9,212 1 26¼	11,272 0 39¼	20,484 2 26	541 0 25	1,075 2 1¼	309 2 13¼	4,342 0 4¾	6,268 1 4¼	128,796 3 1	98,049 9 7	12 2 0
	Bhojpore, acres 89,971-0-12¼	22,370 0 4	52,462 3 8	74,832 3 12	1,549 2 2¼	601 3 19¼	401 3 28¼	12,584 3 11¼	15,138 1 0¼	271,110 1 36	174,220 13 1	10 3 0

Part III.—D.—Agricultural Crops cultivated in acres, actual or approximate

District.	Names of Pergunnahs.	Rice.	Wheat.	Other food-grains.	Oil-seeds.	Sugar.	Cotton.	Opium.	Indigo. (3)	Fibres.	Tobacco.	Vegetable.
		Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Shahabad	Sasseram, acres 15,912-1-1* ...	3,374 0 37¾	1,113 2 4½	10,121 2 2	59 2 26¾	280 0 4½	63 0 20	355 1 8	412 0 8½	72 0 14	18 1 30½	42 1 5
	Rohtas, acres 19,726-2-4¾* ...	7,419 3 17¾	2,690 3 29½	8,914 1 7	47 0 12¾	179 3 22¼	21 3 20	123 0 33½	174 0 18¾	109 3 25¼	6 3 24¼	38 1 29½
	Chynpore, acres 138,723-1-22¼*	74,082 0 6¾	28,250 3 28½	83,143 0 2½	224 0 16¾	897 2 19	423 3 14½	613 1 19¾	536 1 7¾	311 1 37	131 1 1¾	109 1 28½
	Chowsah, acres 20,484-2-26 ...	11,541 0 24½	1,759 3 26½	†5,947 0 4½	199 1 10	573 1 7½	10 3 35	428 0 23½	.....	.....	0 2 20	24 0 35
	Bhojpore, acres 74,832-3-12 ...	20,773 0 30¾	11,480 0 7¾	39,298 3 11½	125 0 4¼	1,136 1 6	211 1 0	693 3 29½	813 0 26	238 0 20	15 2 20	42 1 16¾

* Part of the pergunnah.
† Acres 63-2-35 grow condiments.

Statement No. I.—Details of Cows and Bullocks.

Name of District.	Names of Pergunnahs.	Plough bullocks.	Cart bullocks.	Mill bullocks.	Pack bullocks.	Calves.	Cows.	REMARKS.
SHAHABAD	Chowsah	4,078	14	76	112	2,159	2,387	Total ... 8,826
	Bhojpore	7,405	204	268	310	6,188	7,537	" ... 21,912

Statement No. II.—Details of Irrigation.

Names of Pergunnahs.	Area irrigated from well.	Ahars.	By lift-water.	Flow water.	During rainy season.	Dry season.	Total area irrigated.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Chowsah	3,489 2 36¾	5,722 2 39¾	3,489 2 26¾	5,722 2 39¾	5,722 2 39¾	3,489 2 26¾	9,212 1 26½
Bhojpore	8,400 1 13½	13,969 2 30¾	10,790 0 29	11,579 3 15	11,579 3 15	10,790 0 29	22,370 0 4

Part III.—Table D.—Stock No. 2.

District.	Names of Pergunnahs.	Cows and bullocks.	Horses.	Ponies.	Donkeys.	Sheep and goats.	Pigs.	Carts.	Ploughs.	Boats.	Buffaloes.	Remarks.
Shahabad ..	Sasseram ...	3,931	25	31	85	2,109	475	39	148	.....	319	
	Rohtas	7,102	13	98	167	4,781	981	35	209	.....	3,681	
	Chynpore ...	19,255	95	377	535	6,340	1,751	215	1,917	....	1,819	
	Chowsah... ...	8,826	10	62	68	5,156	686	7	1,599	14	1,232	
	Bhojpore ...	21,912	205	321	235	9,665	1,705	102	3,159	55	2,351	

Statement No. III.—Other Food-Grains.

Name of District.	Names of Pergunnahs	Acres under other food-grains.	Unmixed crops.	Mixed crops.	Remarks.
		Acs. R. P.	Acs. R. P.	Acs. R. P.	
Shahabad	Chowsah	5,883 1 9¼	5,603 1 9	280 0 0¼	Acres 5,883-1-9¼ added to acres 63-2-35 growing condiments make
	Bhojpore	39,298 3 11¼	36,884 0 9	2,414 3 2¼	Acres 5,947-0-4½ shown in column 4 of Part III, Agriculture, or Statement of Crops.

Statement No. IV.—Detail of other Food-Grains.—Part I.—Unmixed.

Names of Pergunnahs.	Sendha and Sathie	Maize.	Other bhadoi cereal.	Bhadoi pulses.	Smaller maize.	Other aghani cereals.	Aghani pulses.	Barley.	Peas.	Other rubbee cereals.	Other rubbee pulses.	Total of columns 2, 3, 4, and 5.	Total of columns 6, 7, and 8.	Total of columns 9, 10, and 11.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Chowsah, acres 5,603-1-9	1,087 3 9½	307 1 0	186 0 15	.	. .	309 3 31¾	48 1 30	1,531 3 34	783 1 5¾	.	1,348 2 13	158 0 24½	358 1 21¾	3,063 3 2¾
Bhojpore, acres 36,884-0 9	19,793 0 37¼	1,548 3 35	1 249 1 35¾	395 0 9	978 1 30	1,042 3 15	375 3 25	3,409 3 28¼	2,066 1 4¼	553 2 27¼	5,470 1 1½	22,986 2 37	2,397 0 30	11,500 0 22

Statement No. V.—Detail of other Food-Grains.—Part II.—Mixed.

Names of Pergunnahs.	Rubbee cereal.	Rubbee cereal and pulse.	Rubbee pulse and oil-seed.	Rubbee pulse and cotton.	Aghani cereal and rubbee pulse.	Aghani cereal and pulse.	Bhadoi cereal and aghani pulse.	Total.
	Acs R P	Acs. R. P.	Acs. R P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R P	Acs. R. P.
Chowsah ...	101 0 25	178 3 15½	...	.. ..		...		280 0 0½
Bhojpore	606 3 11¼	499 2 9½	380 3 20*	59 1 35†	538 2 25	72 0 26	257 0 35	2,414 3 2¼

* Acres 50 grain and oil-seeds.
† Acres 8 grain and cotton.

Statement No. VI.—Single and Double Crops.

Names of Pergunnahs.	Cultivated area.			Single crops.			Double crops.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.
Chowsah...	20,484	2	26	19,377	3	31	1,106	2	35
Bhojpore...	74,832	3	12	64,584	3	10½	10,247	3	35½

Statement No. VII.—First Crops.

Names of Pergunnahs.	Area under double crops.			Autumn rice.			Maize.			Other bhadoi grains.			Other winter grains.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.
Chowsah	1,106	2	35	565	2	29½	39	0	1¾	186	0	15	315	3	28¾
Bhojpore	10,247	3	35½	7,186	2	27½	1,362	2	2	669	0	14	1,029	2	32½

Statement No. VIII.—Second Crops.

Names of Pergunnahs.	Area under double crops.			Rubbee cereals.			Rubbee pulses.			Aghani pulses.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.
Chowsah	1,106	2	35	125	9	35	981	1	0	.....		
Bhojpore	16,247	3	35½	2,017	1	17	7,973	1	33½	257	0	35

Statement IX.—Rice Crops.

Names of Pergunnahs.	Autumn rice.			Winter rice.			Total.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.
Chowsah	1,087	3	9½	11,541	0	24½	12,628	3	34
Bhojpore	19,793	0	37¼	20,773	30	30¾	40,566	1	28

Statement X.—Compensation of Crops.

Names of Pergunnahs.	Bhadoi crops.			Aghani crops.			Rubbee crops.			Remarks.
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.	
Chowsah	1,581	0	24½	11,899	2	6¼	5,829	0	24¾	The area under double crops has been taken twice over.
Bhojpore	23,243	3	32	24,038	1	26¾	34,458	3	39¾	

Part III.—Table D.—Rates of Rent and Produce.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		AVERAGE RENT PER ACRE FOR LAND SUITED FOR										AVERAGE PRODUCE PER ACRE IN lbs.												
DISTRICT.	PERGUNNAHS.	Rice.	Wheat.	Inferior grain.	Indigo.	Cotton.	Opium.	Oil-seeds.	Fibres.	Sugar.	Tobacco.	Rice.	Wheat.	Inferior grain.	Indigo.	Cotton.	Opium.	Oil-seeds.	Fibres.	Sugar.	Tobacco.	Tea.	Coffee.	Betelnut.
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A	Rs. A.	Rs. A.	Rs. A.	Rs. A.														
	Bhojpore and Chowsah.	3 0	4 0	3 0 to 4 0	2 0	8 0	14 0	3 0 to 4 0	3 0 to 4 0	8 0	*	*	1,000 to 1,300	60 Maize 800-900; arhar 800; barley 1,000-1,600	60	150 to 300	15 to 20	300 to 400 Linseed 600-650; Mustard 800	300 to 400	About 600	...	...	...	...
	Rohtas, Chynpore, and Sasseram.	2 8	3 0	2 8 to 3 0	2 0	8 0	10 0	2 8 to 3 0	2 8 to 3 0	8 0	*	*	Do	Do.	Do	Do.	Do.	Do.	Do.	Do.	...	...	..	...

* Boro rice 3,500 to 4,000.
Transplanted 1,600 to 2,000.
Broadcast 1,200 to 1,400.
Sendha and Sathee 700 to 800

Part III.—Table E.—2. Price of Labor.

1	2	3		4	5	6	7	8
District.	Pergunnahs.	Wages per diem.			Carts per day.	Donkeys per score per day.	Boats per day.	Camel per day.
		Skilled.		Unskilled.				
			As.		Rs. A. P.	Rs. A. P.		
Shahabad.	Rohtas, Chynpore, and Sasseram.	Carpenters ...	3	2 as.; less than 2 as. when agricultural.	0 8 0	2 8 0	.....	..
		Blacksmiths ...	3					
	Bhojpore and Chowsah.	Braziers ...	3					
		Masons ...	3					
		Weavers ...	4 to 6					
		Goldsmiths ...	6 to 12					

Remarks.—Pack-bullocks are hired from 4 to 6 as. per day.

Part III.—Table E.—1. Price of Produce and Labor at the end of the year 1873-74.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Price of produce per maund of 80.							Produce not included in the preceding columns.					
District.	Pergunnahs.	Rice.	Wheat.	Linseed.	Jute.	Cotton.	Sugar.	Salt.	Name.	Price per md.	Plough-bullocks, each.	Sheep, each.	Fish, per seer.	Iron, per maund.
										Rs. A.				
	Bhojepore, Chowsah ...	Best sort, Rs. 2-8, 2-12 ...	2 4 2 8	4	3 8	18	10	5	Barley	1 8	10 to 40	1-8 to 3	A. 1 to 2 as.	Rs. 7 to 7½
									Maize	1 4				
		Common sort, Rs. 1-10, 1-14.							Cheenah	2 0				
		Sendha and Sathee, Rs. 1-10, 1-14.							Mundwa	1 4				
									Kurthee	1 8				
	Rohtas, Chynpore, and Sasseram.	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto

Part III D.—Agriculture I.—Crops cultivated in acres, actual or approximate.

NAMES OF PERGUNNAHS.		Rice.	Wheat.	Other food-grain.	Oil-seeds.	Sugar.	Cotton.	Opium.	Indigo.	Fibres.	Tobacco.	Vegetables.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Barabgawan ...	16,758 0 26	267 2 0	1,558 0 20	14,163 1 9	67 2 0	243 1 3	.....	283 3 28	52 3 10	80 0 2	.....	41 2 34
Arrah	111,220 0 24	17,739 2 12	21,199 3 13	69,020 1 4	389 3 16	99 1 0	286 2 10	1,795 0 5	357 3 24	176 3 24	0 1 26	154 2 10
Behea	104,564 2 22	31,396 1 34	8,819 3 26	56,437 2 11	176 3 17	1,212 2 24	158 3 19	1,813 2 34	4,310 1 10	123 0 7	.. ...	115 0 39
Dinareh ...	24,719 1 18	8,269 1 7	4,642 1 30	10,682 2 9	472 2 33	420 0 14	12 0 2	208 0 3	.....	2 3 35	.....	9 1 5

Statement No. IV.—Details of other Grains.—Part I—Unmixed.

NAMES OF PERGUNNAHS.	Sendha and Sathee.	Maize.	Other bhadoi cereals.	Smaller maize.	Aghani cereals.	Aghani pulses.	Barley.	Peas.	Gram and oats.	Rubbee pulses.	Total.	Total.	Total.	Total.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea* ...	2,344 0 1	4,071 0 27	451 1 9	257 1 1	1,655 3 39	163 2 32	5,523 0 32	14,007 1 33	4,553 0 2	3,512 1 26	6,866 1 37	2,076 3 32	27,596 0 13	36,539 2 2
Arrah and Barahgawan† ...	12,360 0 30	3,630 1 8	365 3 35	2,864 0 39	2,694 2 23	452 2 17	3,090 0 7	21,632 1 14	4,384 2 27	4,725 3 20	16,356 1 33	6,011 1 39	33,832 3 28	56,200 3 20

* It appears that while the rice area is much larger in Behea, the other aghani area is larger in Arrah and Barabgawan.
† This is in accordance with our previous notions.

Part III.—Table E.—1. Price of Produce and Labor at the end of the year 1873-74.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
District.	Pergunnahs.	Price of produce per maund of 80 lbs.							Produce not included in the preceding columns.		Plough-bullocks, each.	Sheep, each.	Fish, per seer.	Iron, per maund.
		Rice.	Wheat.	Linseed.	Jute.	Cotton.	Sugar.	Salt.	Name.	Price per maund.				
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.				
	Barahgawan, Arrah, and Behea.	Better sort, Rs. 2 8, 2-12	2 4 0 2 8 0	4 0 0	3 8 0	18 0 0	10 0 0	5 0 0	Barley ...	1 8 0	Rs. 10 to 40 each.	Rs. 1-8 to 3 each.	As. 1 to 2 per seer.	Rs. 7 to 7½* per md.
		Common sort Rs. 1-10, 1-14.							Maize ...	1 4 0				
		Sendha and Sathee, Rs. 1-10, 1-14.							Cheena ...	2 0 0				
									Mundwa ...	1 4 0				
		Present prices.							Kurthee ...	1 8 0				
		Better sort, Rs. 4-8, 5-0	2 10 0 2 12 0	.....	.....	....	.....	6 8 0	Barley ...	2 0 0	Rs. 10 to 40 each.	Rs. 1-8 to 3 each.	As. 1 to 2 per seer.	Rs. 7 to 7½† per md.
		Common sort, Rs. 3-8, 4-0						Maize {	Rs. A. P. 2 0 0 2 4 0					
								Cheena {	2 8 0 2 10 0					

* These are the prices that obtain in average and ordinary years.
† These prices prevailed at the end of the past agricultural year.

Part III.—Table D.—3. Rates of Rent and Produce.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		AVERAGE RENT PER ACRE FOR										AVERAGE PRODUCE PER ACRE.												
DISTRICT.	PERGUNNAHS.	Rice.	Wheat.	Inferior grains.	Indigo.	Cotton.	Opium.	Oil-seeds.	Fibres.	Sugar.	Tobacco.	Rice.	Wheat.	Inferior grains.	Indigo.	Cotton.	Opium.	Oil-seeds.	Fibres.	Sugar.	Tobacco.	Tea.	Coffee.	Betelnut.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.													
Shahabad*	Behea ...	3	4	3 to 4	2	8	14	3 to 4	3 to 4	8	8	Boro rice, 3,500 to 4,000	1,000 to 1,300	1,000 to 1,600	60	150 to 300	15 to 20		300 to 400	About 600				
	Barahgawan, Arrah, Dinareht ...	..	...	.	...	...	...	...	...	...		Transplanted 1,000 to 2,000 Broadcast 1,200 to 1,400 Sendhoo & Satlice 700 to 800		Barley Arhar 800 Maize 800 to 900				Mustard 800 Linseed 600 to 650						

* Zeerohas, common seed 300 to 400.
Dhanyan, 400 to 500.

† Tea, coffee, or betalnut is not grown.

Statement No. V.—Details of other Grains.—Part II—Mixed.

PERGUNNAHS.	Rubbee cereal.	Rubbee cereal and pulse.	Rubbee cereal and oil-seed.	Rubbee pulse and oil-seed.	Rubbee pulse.	Aghani cereal and rubbee pulse.	Aghani cereal and pulse.	Aghani cereal and rubbee cotton.	Bhadoi cereal and rubbee pulse.	Bhadoi cereal and aghani pulse.	Bhadoi cereal and rubbee pulse and cotton.	Total.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea	570 1 13	15,520 1 34	436 3 38	755 2 32	677 3 14	544 0 35	.....	.....	1,382 2 3	... ..	... .	19,898 0 9
Arrah and Barahgawan.	573 2 18	19,555 1 38	590 2 18	1,146 1 5	360 3 4	3,733 2 18	16 3 38	118 3 26	255 3 12	328 3 6	301 3 10	26,982 2 33
	.....	36 0 0	Oil-seed ...	.....	.....	40 0 0	.....	Oil-seeds.				
	.....	55 0 0	Ditto ...	.....	.....	80 0 0	.....	Ditto.				
	0 2 34	0 3 2	Grain 2 bhadoi ...		.....	18 0 0	.....	Cotton.				
	Cereal and rubbee pulse.											
	.....	.....	... ..	.....	0 8 0	35 0 0	.....	Ditto.				

Statement No. I.—Details of Irrigation.—A.

PERGUNNAHS.	Area irrigated from wells.	Ahurs.	Streams.	By lift water.	Flow water.	During rainy season.	Dry season.	Total area irrigated.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea*	19,316 1 9	28,662 2 39	668 1 3	20,004 2 12	28,662 2 39	28,662 2 39	20,004 2 12	48,667 1 11
Arrah and Barahgawan ...	11,685 2 22	4,196 0 5	402 0 38	6,848 0 27	9,455 3 8	10,760 2 19	5,543 1 16	16,303 3 7

* The area irrigated is much larger in Behea. The reasons have been stated in the report.

Statement No. II.—Details of Cows and Bullocks.

PERGUNNAHS	Plough bullocks.	Cart bullocks.	Mill bullocks.	Pack bullocks.	Calves.	Cows.
Behea	20,912	318	426	537	3,798	7,454
Arrah and Barahgawan ...	28,197	1,354	636	1,345	6,758	8,478

REMARKS.—Bullocks employed in the trades are more numerous in Arrah.

Statement No. III.—Other Food-Grains.

PERGUNNAHS.	Area under other food-grains.			Unmixed crops.			Mixed crops.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P.
Behea	56,437	2	11	36,539	2	2	19,898	0	9
Arrah and Barahgawan	83,183	2	13	56,200	3	20	26,982	2	33

Part III.—Table D.—Stock 2 for 1873-1874.

DISTRICT.	PERGUNNAHS.	Cows and bullocks.	Horses.	Ponies.	Donkeys.	Sheep and goats.	Pigs.	Carts.	Ploughs.	Boats.	Buffaloes.
SHAHABAD...	Barahgawan ..	5,597	59	46	72	1,559	508	18	1,598	44	1,695
	Arrah ...	41,171	653	470	7,500	13,335	4,466	659	10,504	242	968
	Behea ...	33,445	233	322	363	9,369	3,855	159	8,123	54	9,603
	Dinareh	8,084	39	31	63	2,725	427	1	1,579	...	1,113

Statement No. VI.—Single and Double Crops.

PERGUNNAHS.	Cultivated area.			Single crops.			Double crops.		
	Acs.	R.	P.	Acs.	R.	P.	Acs.	R.	P
Behea	1,04,564	2	22	89,649	1	21	14,915	1	1
Arrah and Barahgawan	1,27,978	1	10	1,06,476	0	24	21,502	0	26

Statement No. VII.—Details of First Crops.

PERGUNNAHS.	Area under double crops.	Autumn rice.	Maize.	Other bhadoi grains.	Winter rice.	Other winter grains.
	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea	14,915 1 1	2,344 0 1	5,219 1 38	685 2 1	4,298 2 15	2,367 2 26
Arrah and Barahgawan ...	21,502 0 26	12,360 0 30	4,516 2 36	365 3 35	.....	4,259 1 5

Statement No. VIII.—Details of Second Crops.

PERGUNNAHS.	Area under double crops.	Rubbee cereals.	Rubbee pulses.	Poppy.
	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Behea	14,915 1 1	2,840 2 20	12,074 2 21	.....
Arrah and Barahgawan	21,502 0 26	6,670 2 28	13,064 3 16	1,766 2 22

Statement IX.—Rice Crops.

PERGUNNAHS.	Autumn rice.	Winter rice.	Total rice.
	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea	2,344 0 1	31,396 1 34	33,740 1 35
Arrah and Barahgawan	12,360 0 30	18,007 0 12	30,367 1 2

Statement X.—Rice Crops.

PERGUNNAHS.	Bhadoi crops.	Aghani crops.	Rubbee crops.
	Acs. R. P.	Acs. R. P.	Acs. R. P.
Behea	8,249 0 0	34,027 2 21	69,201 2 11
Arrah and Barahgawan	17,242 3 21	28,216 3 19	98,105 3 22

REMARKS.—The areas under double crops have been shown twice—once in columns 2 and 3, and again in column 4, except acres 1,766-2-22 of poppy land, which has been shown only in column 2.

Statement XI.—Schedule of Cost of cultivating a Beegah of Land for different Crops.

Number of charges.	Items of charges.	Poppy.	Canes.	Wheat.	Transplanted rice.	Broadcast rice.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Manuring ...	1 4 0	10 0 0	.....	.....	.....
2	Ploughing ..	2 0 0	1 8 0	3 0 0	1 8 0	0 6 0
3	Sowing	1 2 0	3 8 0	2 6 0	2 4 0	1 2 0
4	Irrigating ...	13 8 0	4 0 0	*3 0 0	9 0 0	.....
	Weeding ...	2 0 0	3 0 0	.....	.....	0 12 0
	Total ...	19 14 0	22 0 0	8 6 0	12 12 0	2 4 0

* This charge would be wanting in wheat sown on unirrigated land, the total cost being Rs. 5-6-0.

Part II.—Table E.—2. Price of Labor.

1	2	3	4	5	6	7	8
District.	Pergunnahs.	Wages per diem. Skilled.	Wages per diem. Unskilled.	Carts per day.	Donkeys per score per day.	Boats per day.	Camel per day.
		As.		Rs. A. P.	Rs. A. P.		
Shahabad.	Barahgawan, Arrah, and Behea.	Carpenters ... 3 Braziers ... 3 Weavers ... 4 to 6 Blacksmiths 3 Masons ... 3 Goldsmiths... 6 to 12	Less than 2 ans. when agricultural, 2 ans. when non-agricultural.	0 8 0	2 8 0	Rs. 1 to 3.	...

Remarks—There are no camels hired for the day. Pack-bullocks are hired at from 4 to 6 ans. per day.

Part I.—Table E.—2. Fiscal Survey and Assessment Area in Acres, 1873-74.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		CULTIVATED.				UNCULTIVATED.					ASSESSMENT.				
		Irrigated.					Culturable.								
DISTRICT.	PERGUNNAHS.	By Government works.	By private individuals.	Unirrigated.	Total.	Grazing lands.	Cultivated within 3 years past, but now fallow.	Not cultivated within 3 years past.	Unculturable.	Total.	Total area assessed.	Gross amount.	Rate per acre on cultivation.	Rate per acre on culturable land.	Rate per acre on total area of settlement.
			Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	Acs. R. P.	A. R. P.	A. R. P.	Rs. A. P.
SHAHABAD.	Barahgawan, area 30,502-2-18.	.....	1,071 2 31	15,686 1 34	16,758 0 25	94 1 39	145 3 8	3,983 0 0	9,581 0 26	13,804 1 33	38,465 3 8	46,680 3 4	.....	.....	13 6 0
	Arrah, area 141,004-1-30.	.....	15,232 1 4	95,987 3 20	1,11,220 0 24	827 3 38	1,837 3 20	11,378 0 1	15,740 1 26	29,784 1 6	1,66,458 3 32	265,955 12 2	.....	.....	1 9 0
	Behea, area 129,155-2-11.	.....	48,667 1 11	55,897 1 11	1,04,564 2 22	88 3 25	597 0 21	2,302 2 23	21,602 0 39	24,590 3 28	1,48,012 0 31	152,611 10 2	.....	.....	1 0 4
	Dinareh, area 32,934-3-7.	.....	8,191 2 34	16,527 2 24	24,719 1 18	1,090 2 9	307 1 0	2,307 0 9	4,560 2 11	8,265 1 29	35,274 3 1	21,244 2 5	.....	.....	0 9 6

CAPM BUXAR,
The 11th May 1874.

S. D. H. AHMED,
Deputy Collector.